

FIG. 1

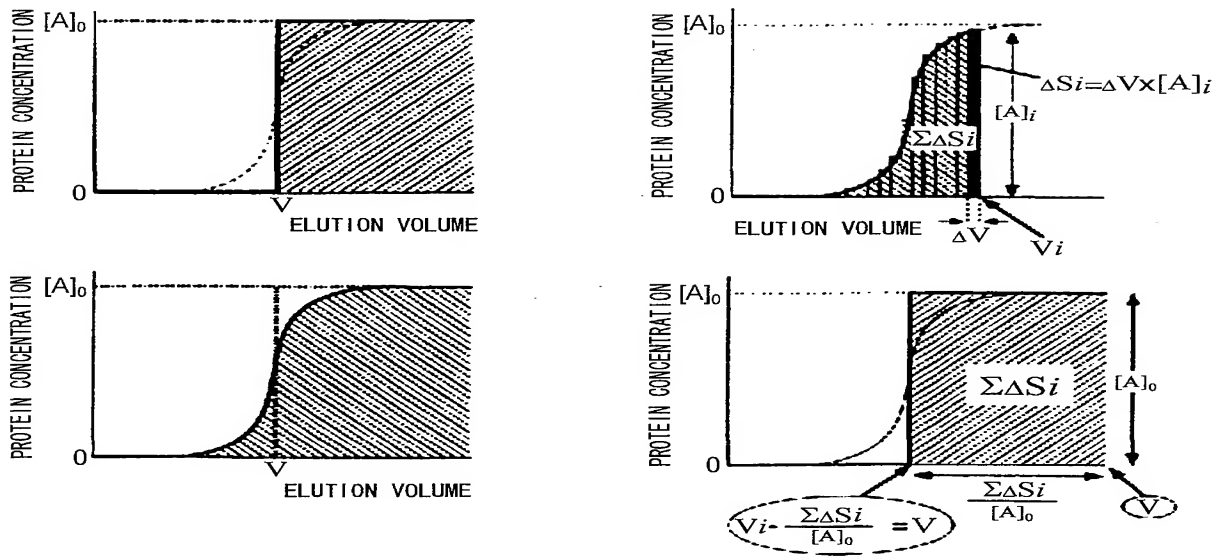


FIG. 2

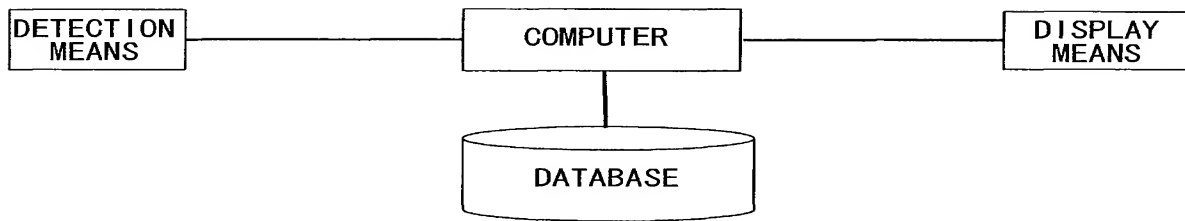


FIG. 3

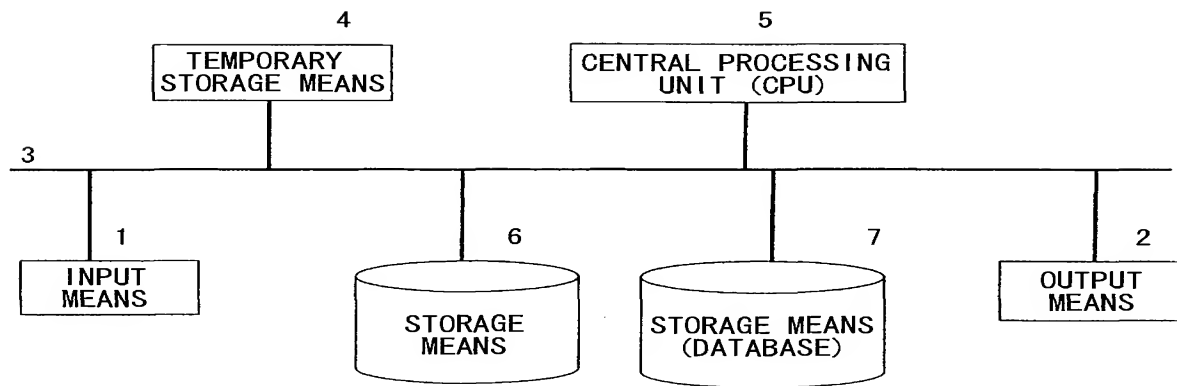


FIG. 4

A	B	C	D	E	F	G	H	I	J	K
	Time	ELUTION VOLUME (V)	Intensity (A)	ZERO CORRECTION % of plateau STRENGTH						
	(min)	(μ L)	(μ V)	(μ V)						
22										
23	PLATEAU JOINT									
24	PLATEAU JOINT									
25		0	-20429	-19524	-35.8	-40.6744	-40.6744	0.002083	-0.00208	
26		0.01667	0.002084	-19524	-35.8	-40.6744	-81.3489	0.004167	-0.00208	
27		0.03333	0.004166	-106	799	1.665152	-79.6837	-0.0997	0.10362	
28		0.05	0.00625	-235	670	1.2	1.396402	-78.2879	-0.1168	0.123049
29		0.06667	0.008334	-358	547	1.0	1.140152	-77.1472	-0.14097	0.1493
30		0.08333	0.010416	-474	431	0.8	0.898455	-76.2487	-0.1768	0.187215
31		0.1	0.0125	-568	337	0.6	0.702652	-75.546	-0.22399	0.236491
32		0.11667	0.014584	-682	228	0.4	0.485152	-75.0809	-0.33627	0.350858
33		0.13333	0.016666	-797	108	0.2	0.225586	-74.8553	-0.69136	0.708025
34		0.15	0.01875	-888	16	0.0	0.033902	-74.8214	-4.58796	4.616713
35		0.16667	0.020834	-944	-39	-0.1	-0.06066	-74.9021	1.934091	-1.91926
36		0.18333	0.022916	-1016	-111	-0.2	-0.23088	-75.1528	0.678539	-0.65562
37		0.2	0.025	-1074	-169	-0.3	-0.35152	-75.4843	0.447375	-0.42237
38		0.21667	0.027084	-1129	-224	-0.4	-0.4661	-75.9504	0.339478	-0.31239
111		1.43333	0.179166	48956	48976	99.3	102.0335	3279.098	0.068953	0.112213
112		1.45	0.18125	49003	49023	99.4	102.1314	3381.229	0.068972	0.112278
113		1.46667	0.183334	49030	49050	99.5	102.1877	3483.417	0.071018	0.112316
114		1.48333	0.185416	49059	49119	99.6	102.3314	3585.748	0.073001	0.112415
115		1.5	0.1875	49180	49200	99.8	102.5002	3688.248	0.074984	0.112536
116		1.51667	0.189584	49248	49268	99.9	102.6419	3790.89	0.076944	0.11264
117		1.53333	0.191666	49283	49313	100.0	102.7556	3893.626	0.078957	0.112709
118	118	1.55	0.19375	49281	49301	100.0	102.7106	3996.337	0.08106	0.11269
119	119	1.56667	0.195834	49275	49295	100.0	102.6981	4099.035	0.083153	0.112681
120	120	1.58333	0.197916	49268	49288	100.0	102.6856	4201.72	0.085246	0.11267
121	121	1.6	0.2	49277	49297	100.0	102.7023	4304.423	0.087316	0.112684

(1)

FIG. 5

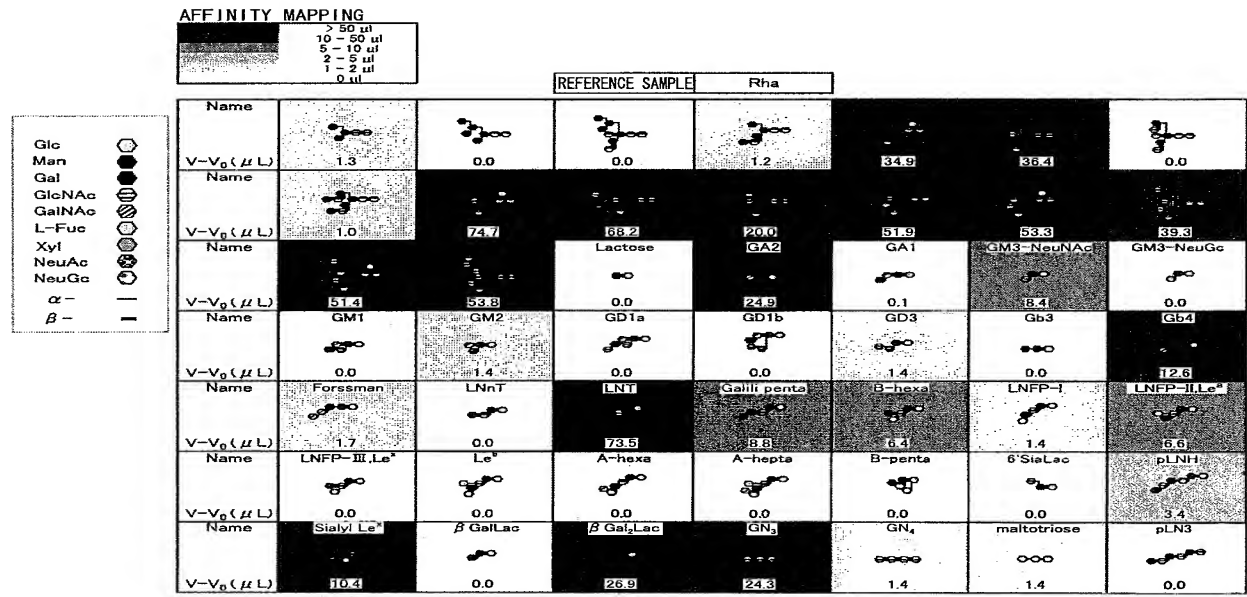
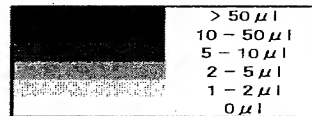


FIG. 6

AFFINITY MAPPING



REFERENCE SAMPLE	Rha	
SUGAR CHAIN	V-V ₀ (μ L)	K _a (μ M ⁻¹)
1	1.3	9.31E-04
2	0.0	0.00E+00
3	0.0	0.00E+00
4	1.2	8.58E-04
5	34.9	2.57E-02
6	36.4	2.68E-02
7	0.0	0.00E+00
8	1.0	7.60E-04
9	74.7	5.49E-02
10	68.2	5.01E-02
11	20.0	1.47E-02
12	51.9	3.82E-02
13	53.3	3.92E-02
14	39.3	2.89E-02
15	51.4	3.78E-02
16	53.8	3.96E-02
17	0.0	0.00E+00
18	24.9	1.83E-02
19	0.1	9.34E-05
20	8.4	6.14E-03
21	0.0	0.00E+00
22	0.0	0.00E+00
23	1.4	1.01E-03
24	0.0	0.00E+00
25	0.0	0.00E+00
26	1.4	1.03E-03
27	0.0	0.00E+00
28	12.6	9.24E-03
29	1.7	1.28E-03
30	0.0	0.00E+00
31	73.5	5.41E-02
32	8.8	6.49E-03
33	6.4	4.73E-03
34	1.4	1.01E-03
35	6.6	4.88E-03
36	0.0	0.00E+00
37	0.0	0.00E+00
38	0.0	0.00E+00
39	0.0	0.00E+00
40	0.0	0.00E+00
41	0.0	0.00E+00
42	3.4	2.49E-03
43	10.4	7.65E-03
44	0.0	0.00E+00
45	26.9	1.97E-02
46	24.3	1.79E-02
47	1.4	1.01E-03
48	1.4	1.01E-03
49	0.0	0.00E+00

FIG. 7-1

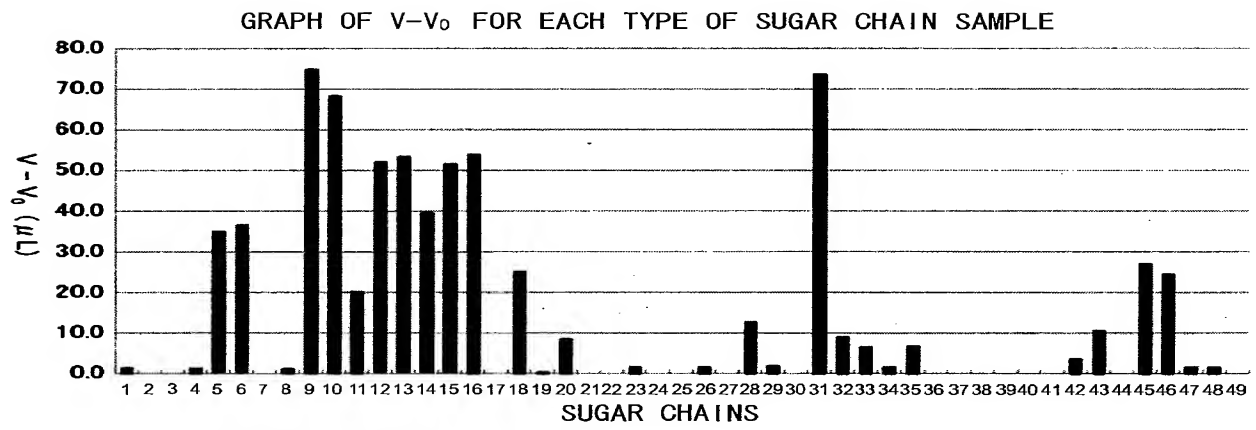


FIG. 7-2

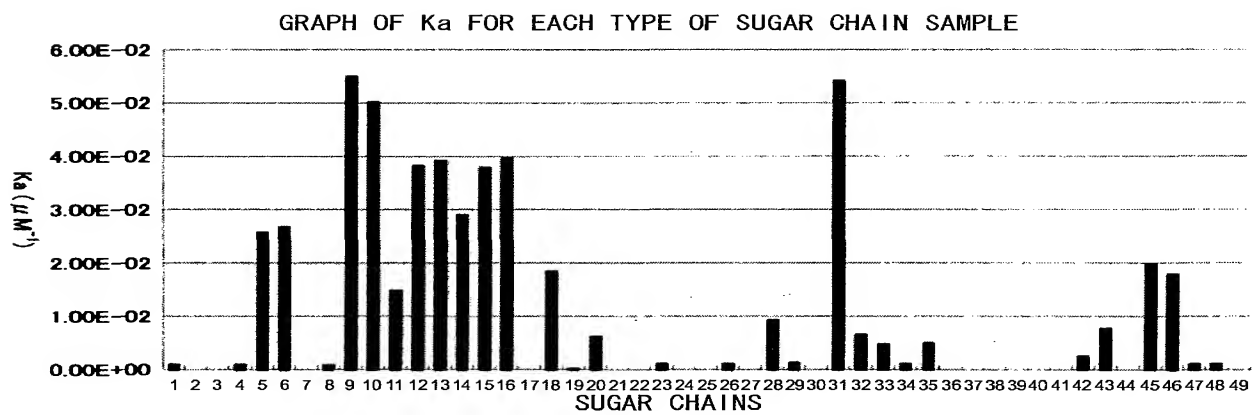
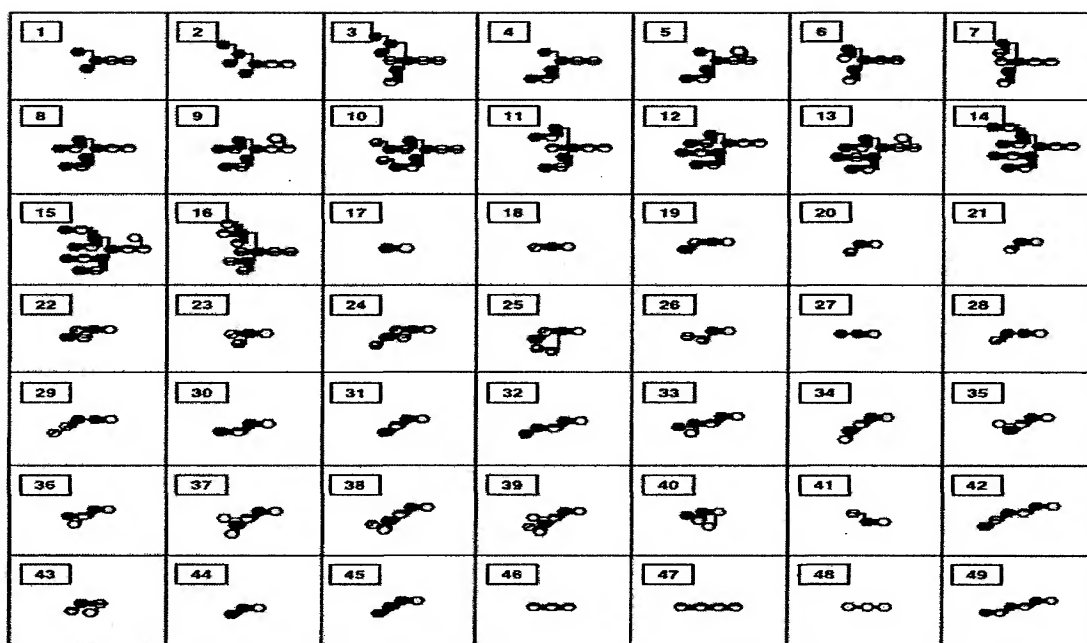


FIG. 7-3



SUGAR CHAINS USED TO MEASURE
THE LECTIN-SUGAR CHAIN INTERACTION

Glc	
Man	
Gal	
GlcNAc	
GalNAc	
L-Fuc	
NeuAc	
NeuGc	
α -linkage	
β -linkage	

FIG. 8

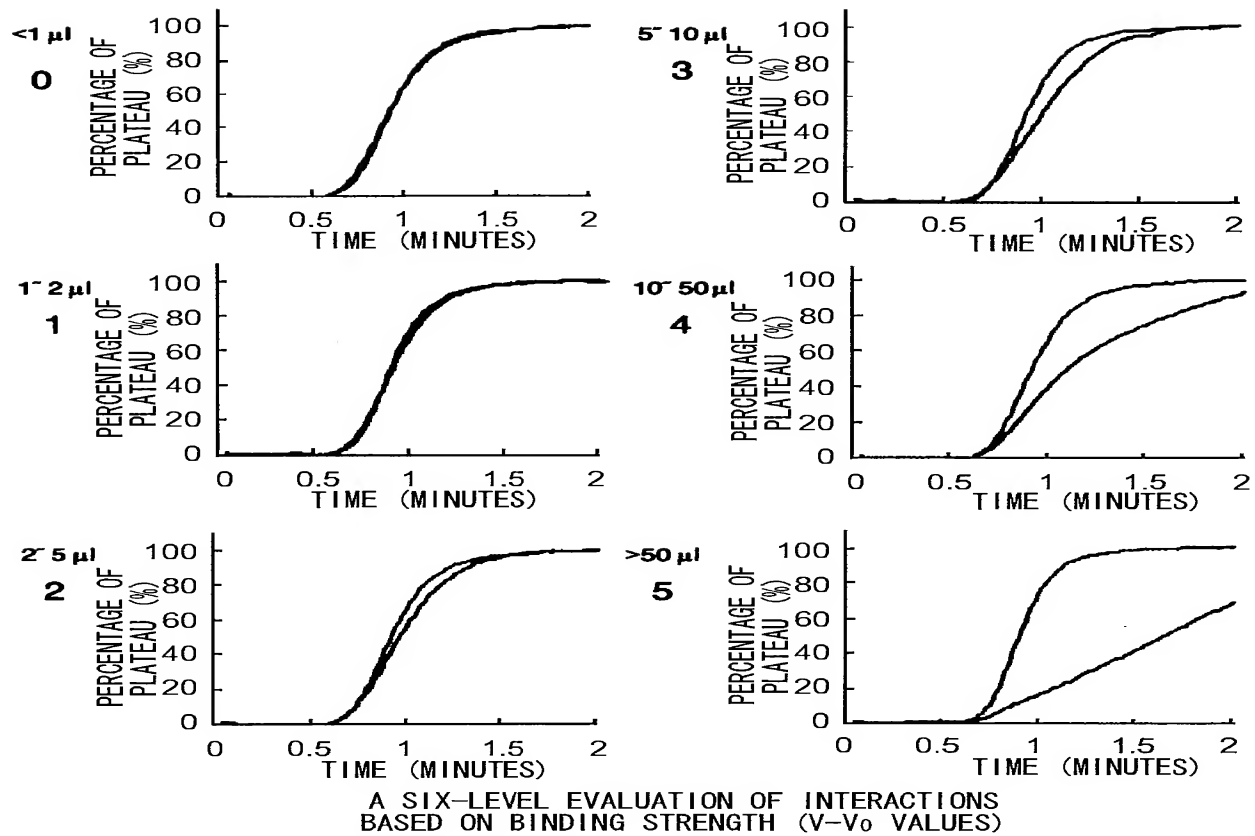
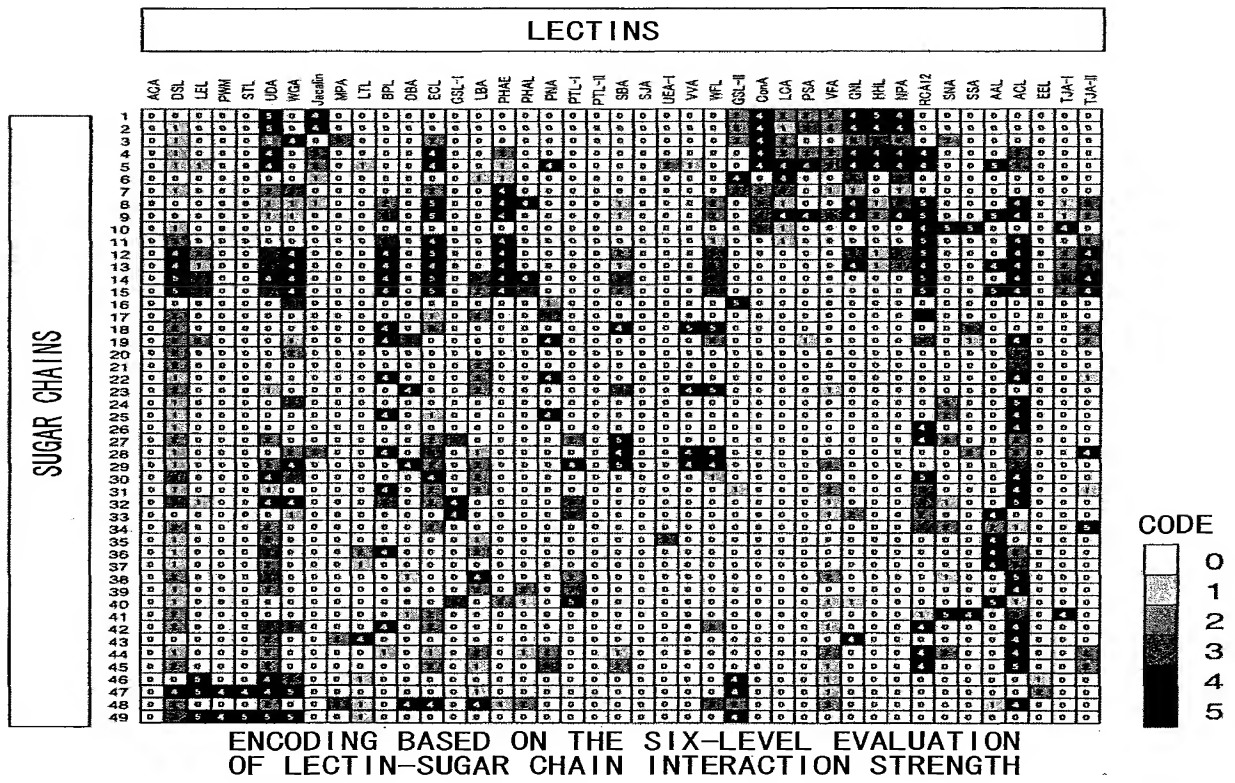


FIG. 9



1. FAC ANALYSIS OF A SUGAR CHAIN
WITH UNKNOWN STRUCTURE



2. ENCODING OF THE INTERACTION STRENGTH
(e. g. IN SIX LEVELS: 0 TO 5)

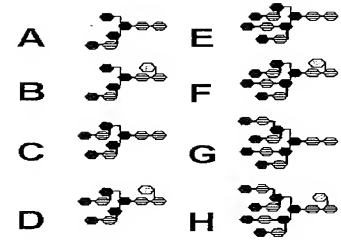


3. COMPARISON WITH THE DATABASE

SUGAR CHAIN

LECTIN

A	4	0	2	0	0	4	4	4	0	4
B	4	0	4	4	0	4	4	4	0	4
C	5	2	1	0	4	1	4	1	3	3
D	5	3	4	0	0	1	4	2	2	4
E	5	4	0	0	0	3	3	1	4	3
F	4	4	0	0	0	3	4	1	3	3
G	5	4	0	0	4	4	0	0	4	0
H	5	4	0	0	3	3	0	0	4	0



4. SELECTION OF A SUGAR CHAIN STRUCTURE

SUGAR CHAIN X
WITH UNKNOWN STRUCTURE =



FIG. 11

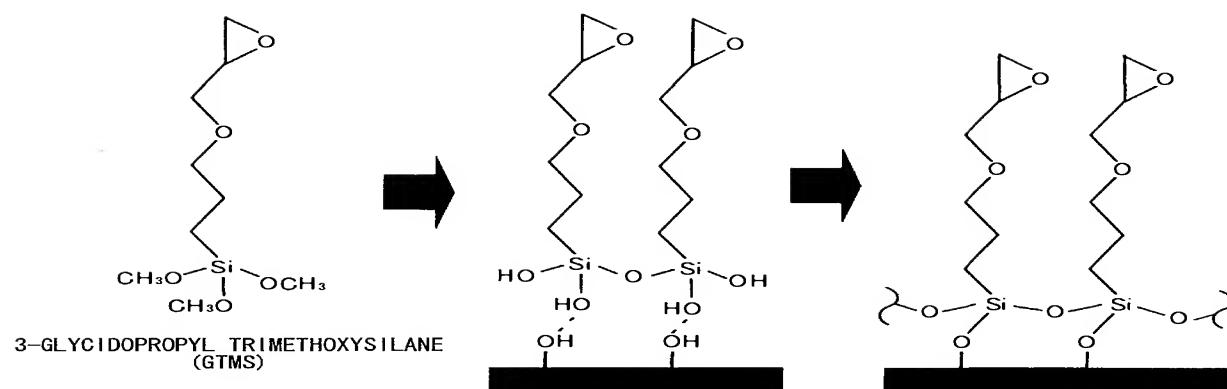


FIG. 12

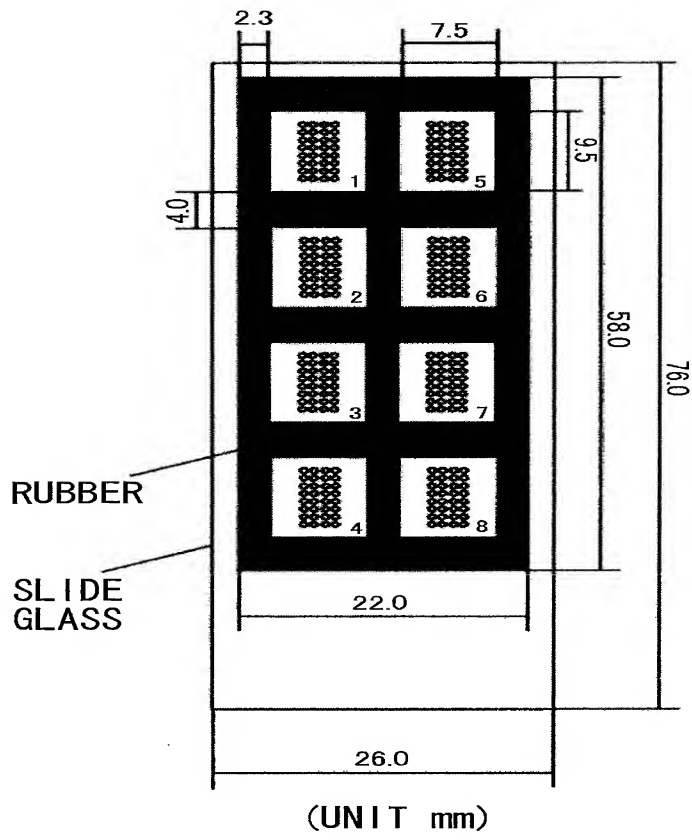


FIG. 13

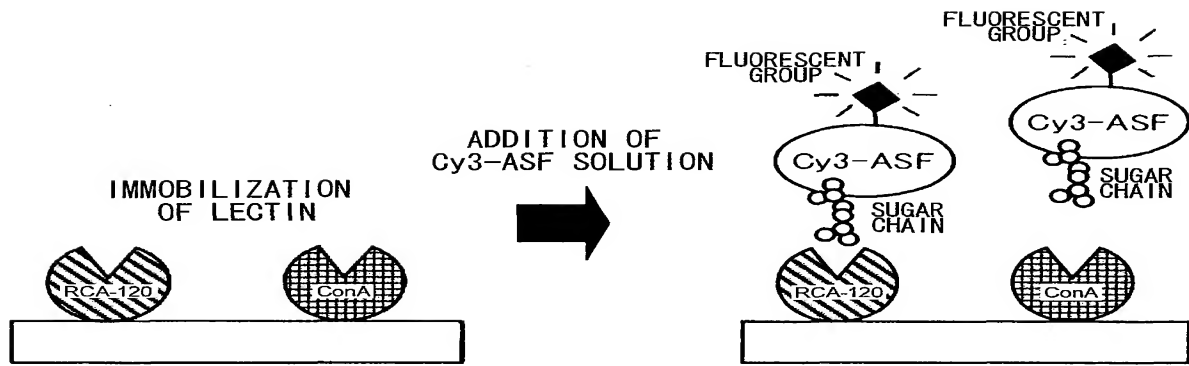


FIG. 14

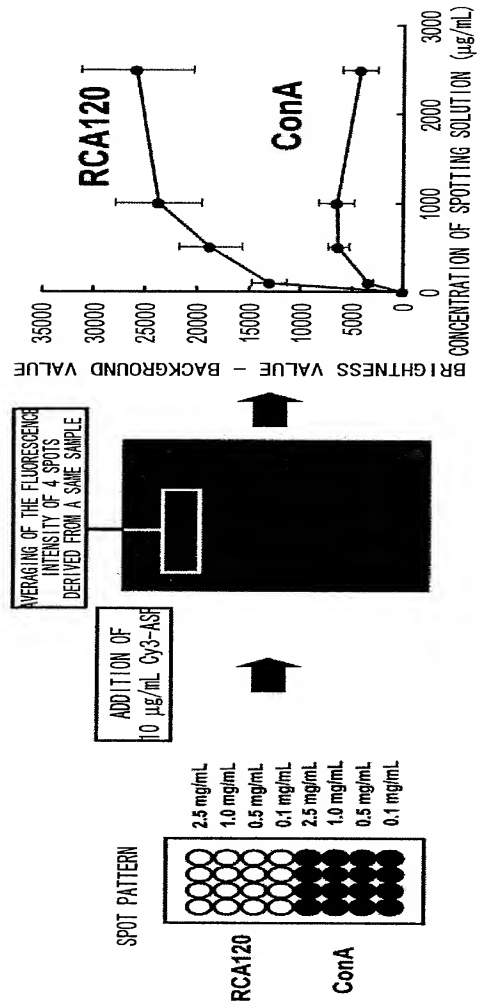


FIG. 15

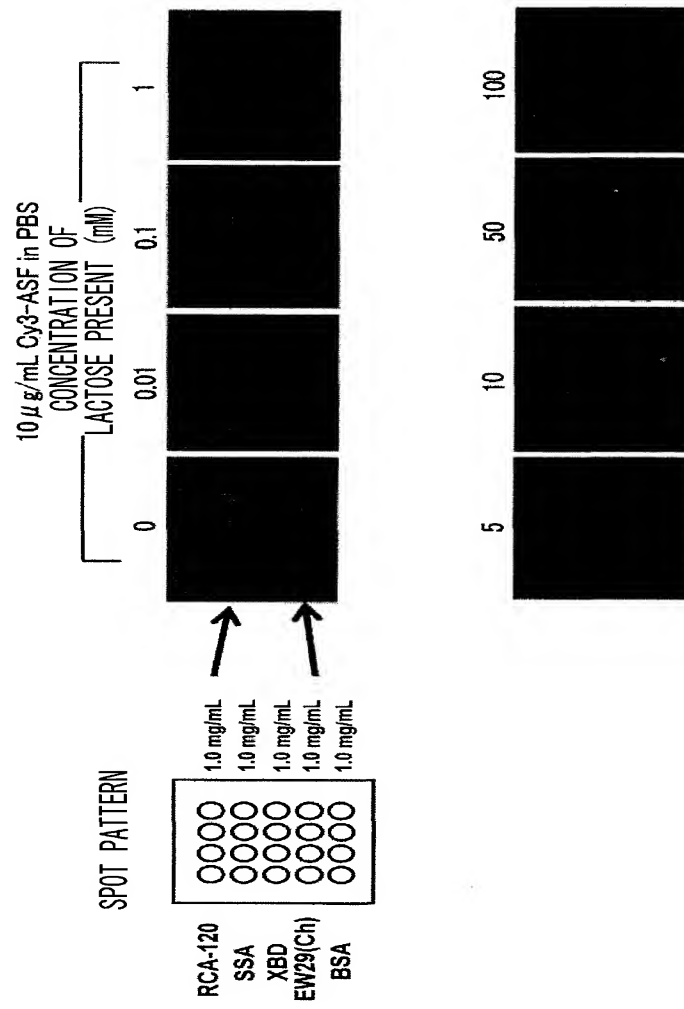


FIG. 16

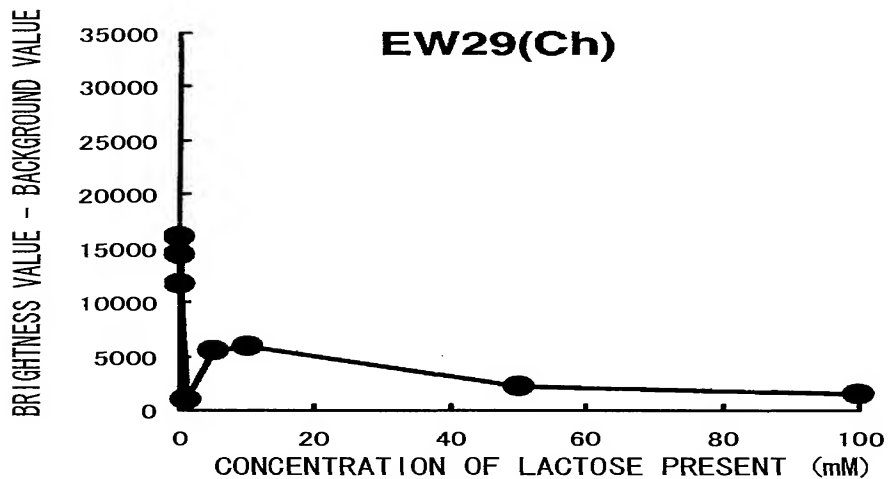
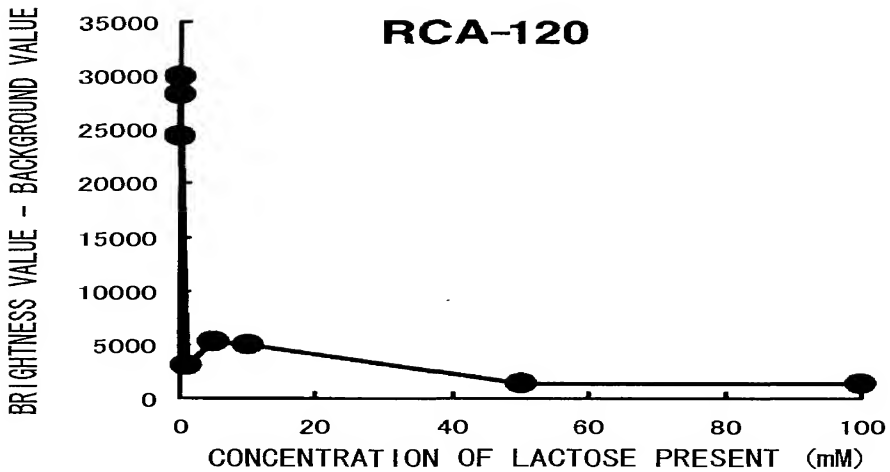


FIG. 17